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09/304,906	05/04/1999	RALPH E. SIPPLE	33012/264/10	1322

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NAWROCKI, ROONEY & SIVERTSON  
SUITE 401, BROADWAY PLACE EAST  
3433 BROADWAY STREET NORTHEAST  
MINNEAPOLIS, MN 554133009

EXAMINER
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TRAN, HAI V

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 08/13/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/304,906

Applicant(s)

SIPPLE ET AL.

Examiner

Hai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The corrected or substitute drawings were received on 10/08/2003.

The drawings (Fig. 2, 4-9 and 12) are again objected to because the Applicant fails to comply to the request of labeling all the labeled numbers with corresponding labels/names, i.e. in Fig. 2, labels number 40, 44, 48, 46, 50, 52 etc.....

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Response to Arguments***

Applicant's arguments filed 10/08/2003 have been fully considered but they are not persuasive.

Claim1, in response to applicant's argument that "...If one were somehow motivated to combine Chen with Hendricks, one would employ the combined teaching to implement the multiple processor architecture taught by Hendricks rather than the multiple multiprocessor architecture only taught and claimed by Applicant", the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

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In this case, Hendricks discloses a video on demand system for supplying requested video data to a plurality of subscriber receivers (Fig. 3A-C, 4-8), the system comprising:

a. A first processor (File Server 215 of Fig. 3A) that spools (store a data in queue, where it awaits its turn to be processed) said requested video data (Fig. 2, 4, 5, 6A, 7 and 8; Col. 7, lines 25-43; Col. 9, lines 13-38; Col. 17, lines 44-48; Col. 18, lines 17-30).

b. A video server memory (Fig. 3A, element 262) responsively coupled to said first processor (File Server 215 of Fig. 3A) in which said spooled requested video data is stored (Col. 12, lines 39-50; Col. 28, lines 30-55);

Hendricks does not clearly discloses "A second processor" responsively coupled to said video server memory (Fig. 3A, element 262) and the subscriber receiver 292 which streams said spooled requested video data from said video server memory (Fig. 3A, element 262) to the plurality of subscriber receivers 292 (Col. 23, lines 62-67 and Col. 28, lines 30-55).

Chen discloses a multiprocessor system wherein each processor configures to perform related task independently (Col. 2, lines 63-Col.3, lines 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks' file server 215 with a plurality processors, as taught by Chen, so each processor could be configured to operate independently whereby independent tasks of different jobs may be performed, thereby avoids the problems

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of underutilization and provide a higher system throughput (Chen, Col. 2, lines 65-Col. 3, lines 5).

As to claims 6, 11 and 16, the Examiner has carefully considered Applicant's remark; however, Applicant argument is moot in view of newly amended claims 6, 11 and 16.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (US 6201536) in view of Chen et al. (US 4636942).

Regarding claim 1, Hendricks discloses a video on demand system for supplying requested video data to a plurality of subscriber receivers (Fig. 3A-C, 4-8), the system comprising:

- a. A first processor (File Server 215 of Fig. 3A) that spools (store a data in queue, where it awaits its turn to be processed) said requested video data (Fig. 2, 4, 5, 6A, 7 and 8; Col. 7, lines 25-43; Col. 9, lines 13-38; Col. 17, lines 44-48; Col. 18, lines 17-30).

b. A video server memory (Fig. 3A, element 262) responsively coupled to said first processor (File Server 215 of Fig. 3A) in which said spooled requested video data is stored (Col. 12, lines 39-50; Col. 28, lines 30-55);

Hendricks does not clearly disclose "A second processor" responsively coupled to said video server memory (Fig. 3A, element 262) and the subscriber receiver 292 which streams said spooled requested video data from said video server memory (Fig. 3A, element 262) to the plurality of subscriber receivers 292 (Col. 23, lines 62-67 and Col. 28, lines 30-55).

Chen discloses a multiprocessor system wherein each processor configures to perform related task independently (Col. 2, lines 63-Col.3, lines 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks' file server 215 with a plurality processors, as taught by Chen, so each processor could be configured to operate independently whereby independent tasks of different jobs may be performed, thereby avoids the problems of underutilization and provide a higher system throughput.

Regarding the claimed limitation "in a plurality of streams spaced apart by a given time", Hendricks discloses that subscribers requested the same program within the specified time period of a timer, i.e. 5 minutes, the system will transmit the same requested program on the same channel. Once the timer is expired and additional requests for the same program is received, the additional requests are handled like an initial request and the timer is restarted and reset to a predetermined time, i.e. 5 minutes, and the same program requested is transmitted on another

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channel (stream). Thus, Hendricks meets and encompasses the claimed limitation "in a plurality of streams spaced apart by a given time" (Col. 18, lines 63-Col. 20, lines 62).

2. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (US 6201536) in view of Chen et al. (US 4636942), and further in view of Unisys Cellular Multiprocessing Architecture White Paper pages 1-8.

Regarding claims 2 and 3 Hendricks fails to disclose the video on demand system wherein video server said memory further comprises a Unisys CMP memory platform and wherein said second processor further comprises an industry compatible, Windows NT based processor.

Unisys White Paper discloses a Unisys CMP memory platform and wherein said second processor further comprises an industry compatible; Windows NT based processor (whole document). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks' video-on-demand system in view of Chen to use a Unisys CMP memory platform and wherein the second processor further comprises an industry compatible, Windows NT based processor, as taught by Unisys white Paper, so to take the advantage of the well known "Intel" /NT based processor and to further improve the performance of Hendricks' s VOD system by consolidating all the network components into one enterprise server and also to lower the cost for managing the system (page 8 of White Paper).

Regarding claim 4, Hendricks further discloses wherein said first processor 260 further comprises a transaction server (performs database management, order and billing) responsively coupled to said subscribing receiver and said video server memory (Col. 12, lines 29-55).

Regarding claim 5, Hendricks further discloses wherein said requested video data further comprises MPEG-2 format (Col. 24, lines 1-2).

3. Claims 6, 11, 12, 13, 16, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (US 6201536) in view of Dixon et al. (US 5935206).

Regarding claim 6, Hendricks discloses an apparatus comprising:

- a. Two subscribing television receivers each of which providing a separate spaced apart service request for a video program (Col. 13, lines 10-Col. 14, lines 33);
- b. A memory (Fig. 7, File Server 215 with storage/memory) having a copy of said video program in spooled form (MPEG data stream stored on the File Server) corresponding to said service request (Fig. 2, 4, 5, 6A, 7 and 8 el. 214; Col. 7, lines 25-43; Col. 9, lines 13-38; Col. 11, lines 4-13; Col. 18, lines 10-38; Col. 28, lines 31-55);
- c. A processor (File Sever 215 with processor) responsively coupled to said memory (element 262 of Network manager 214; RAM) and said two subscribing



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cable television receivers 292s (Col. 18, lines 10-38; Col. 23, lines 62-67 and Col. 28, lines 30-55).

Hendricks does not clearly disclose "which streams (transmits/emits) said spooled video program to said two subscribing television receivers as two separate spaced apart streams from said copy of said video program spaced apart by time period"

Dixon discloses by establishing a number of viewers (any number) can view the existing copy of movie, the system makes a replication of another copy of the existing copy of movie when the number of current viewer of the existing copy of movie exceeds the upper threshold for the existing copy of movie. If the number of current viewer of the existing copy of movie does not exceed the upper threshold for the existing copy of movie, the system does not need to replicate the existing copy of movie and the server allocates access for the current request to the existing copy of movie. Thus Dixon reads on "two separate spaced apart stream from the copy of the video program" (Col. 3, lines 20-Col. 4, lines 65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks with Dixon to automatically tailor the number of copies of movies and allocated bandwidths to viewer requirements and to provide requesters promptly access to movies (Col. 2, lines 1-7).

Regarding claim 11, Hendricks (Col. 18, lines 63-Col. 20, lines 62) discloses in a VOD system environment comprising:

- a. First means for requesting a video on demand program at a first time (1<sup>st</sup> subscriber requests a video program; see Col. 18, lines 65-Col. 19, lines 6);
- b. Second means for requesting said video on demand program at a later second time (2<sup>nd</sup> subscriber requests a video program; see Col. 18, lines 65-Col. 19, lines 6);
- c. Means responsively coupled to said first requesting means for storing a copy of said requested video on demand program (spooled program in the memory; Fig. 2, 4, 5, 6A, 7 and 8 el. 214; Col. 7, lines 25-43; Col. 9, lines 13-38; Col. 11, lines 4-13; Col. 18, lines 15-38; Col. 28, lines 31-55); and

Hendricks does not clearly disclose "Means responsively coupled to said storing means for streaming said requested video on demand program twice from said copy stored within said storing means".

Dixon discloses by establishing a number of viewers (any number) can view the existing copy of movie, the system makes a replication of another copy of the existing copy of movie when the number of current viewer of the existing copy of movie exceeds the upper threshold for the existing copy of movie. If the number of current viewer of the existing copy of movie does not exceed the upper threshold for the existing copy of movie, the system does not need to replicate the existing copy of movie and the server allocates access for the current request to the existing copy of movie. Thus Dixon reads on "for streaming said requested video on demand program twice from said copy stored

within said storing means" (Col. 3, lines 20-Col. 4, lines 65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks with Dixon to automatically tailors the number of copies of movies and allocated bandwidths to viewer requirements and to provide requesters promptly access to movies (Col. 2, lines 1-7).

Regarding claim 12, Hendricks further discloses wherein said first requesting means further comprises a subscriber box (specifically Fig. 6A, in which the information paths between headend 208 and nodes 288 are bi-directional with upstream path 246; Fig. 4,5,6A and 7, element 292s).

Regarding claim 13, Hendricks further discloses wherein said streaming means further comprises an industry standard personal computer (system with CPU, RAM, ROM, EPROM, EEPROM, PCI, RS-232, RS-244 or IEEE-488 compatible; Col. 11, lines 14-65+).

Regarding claims 16, method claim 16 is analyzed with respect to claim 11 with addition limitation:

- d. Streaming said corresponding video program from said single copy of said video program to said 1<sup>st</sup> subscriber at a third time (reads on Hendricks in view of Dixon in which Dixon, as discussed in claim 11, discloses that 1<sup>st</sup> request is within the threshold of number of viewer could access the existing

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- copy of movie requested, the system delivers the existing copy of movie requested to the viewer at delivery time, i.e. 3<sup>rd</sup> time); and
- e. Streaming said corresponding video program from said single copy of said video program to said 2<sup>nd</sup> subscriber beginning at a time difference from and later than said 3<sup>rd</sup> time (reads on Hendricks in view of Dixon in which Dixon, as discussed in claim 11, discloses that 2<sup>nd</sup> request is within the threshold of number of viewer could access the existing copy of movie requested, the system delivers the existing copy of movie requested to the 2<sup>nd</sup> viewer beginning at a time, i.e. 4<sup>th</sup> time, difference from and later than the 3<sup>rd</sup> time);

Regarding claim 17, the limitation of method claim 17 "streaming said corresponding video program to said first subscriber at said third time and second streaming said corresponding video program to said second subscriber at a fourth time if said difference between said second later time and said first time is greater than a predetermined interval" is further met by Hendricks in view of Dixon, because the time requested of the same program as the 1<sup>st</sup> subscriber from the 2<sup>nd</sup> subscriber are supposedly different; Dixon, as discussed in claim 11, discloses that 1<sup>st</sup> request of the 1<sup>st</sup> subscriber is within the threshold of number of viewer could access the existing copy of movie requested, the system delivers the requested of the existing copy of movie to the 1<sup>st</sup> subscriber at delivery time, i.e. 3<sup>rd</sup> time. The 2<sup>nd</sup> request of the 2<sup>nd</sup> subscriber if is within the threshold of number of viewer, the server will

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allocate access for the current existing copy of movie requested to the 2<sup>nd</sup> subscriber at a time, i.e. 4<sup>th</sup> time, difference from and later than the 3<sup>rd</sup> time.

Regarding claim 18, Hendricks discloses the predetermined time interval (timer) typically should be set to expire after a few minutes; However, the presetting time of the timer does not preclude an Ordinary Skill in the Art to preset the timer to be one minute as claimed. Thus, it is reasonably obvious that one Ordinary Skill in the Art would set the timer to "one minute" so Hendricks's system would further reduce the waiting time period of subscribers to receive the VOD program requested.

4. Claims 7, 8, 9, 10, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (US 6201536) in view of Dixon et al. (US 5935206), and further in view of Unisys Cellular Multiprocessing Architecture White Paper pages 1-8.

Regarding claims 7, 8 and 14, Hendricks in view of Dixon fails to disclose the video on demand system wherein video server said memory further comprises a Unisys CMP memory platform and wherein said second processor further comprises an industry compatible, Windows NT based processor.

Unisys White Paper discloses a Unisys CMP memory platform and wherein said second processor further comprises an industry compatible; Windows NT based processor (whole document). Therefore, it would have been obvious to one

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of ordinary skill in the art at the time the invention was made to modify Hendricks' video-on-demand system to use a Unisys CMP memory platform and wherein the second processor further comprises an industry compatible, Windows NT based processor, as taught by Unisys white Paper, so to take the advantage of the well known "Intel"/NT based processor and to further improve the performance of Hendricks in view of Dixon' s VOD system by consolidating all the network components into one enterprise server and also to lower the cost for managing the system (page 8 of White Paper).

Regarding claim 9, Hendricks further discloses wherein said spooled video program further comprises MPEG-2. (Col. 23, lines 64-Col. 24, lines 2).

Regarding claim 10, Hendricks further comprises a transaction server (performs database management, order and billing) responsively coupled to said subscribing receiver and said video server memory (Col. 12, lines 29-55).

Regarding claim 15, Hendricks further discloses in a video on demand system, a transaction subsystem responsively coupled to said first requesting means and said storing means for spooling said requested video on demand program into said storing means and for managing archival storage of video streams in a hierarchical storage management system that is integrated with the management application and requires no manual intervention (Col. 34, lines 60-Col. 35, lines 20).

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5. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (US 6201536) in view of Dixon et al. (US 5935206), and further in view of in view of Ong (US 5815662).

Regarding claim 19, Hendricks in view of Dixon does not clearly disclose "fast forwarding said streaming in response to a fast forward from said first subscriber".

Ong discloses fast forwarding said streaming in response to a fast-forward from said first subscriber (Col. 7, lines 65- Col. 8, lines 13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks in view of Dixon to have a VCR viewing function as fast forward, as taught by Ong, so to provide to users an enjoyable way to control the viewing sequence of a VOD program.

Regarding claim 20, Hendricks further discloses performing subscriber accounting to enable billing said subscriber for said video on demand request (performs database management, order and billing; Col. 12, lines 29-55).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is 703-308-7372. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C. Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht  
08/06/2004



HAI TRAN  
PATENT EXAMINER